

99704

No. 0000056



U.S. Environmental Protection Agency  
 Solid Waste Management Office  
 P.O. Box 818, Alexandria, Virginia 22313  
 PHONE: (703)/557-2490 or FTS/557-2490

SAS Number
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*Approved 8/11/86*  
*Dennis Wesolowski*

**SPECIAL ANALYTICAL SERVICES  
 Client Request**

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Regional Transmittal

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Telephone Request

Region/Client: V / WESTON

B. RSCC Representative: Dennis Wesolowski

C. Telephone Number: (312) 886-1971

D. Date of Request: August 10, 1986

E. Site Name: Skinner Landfill

Please provide below a description of your request for Special Analytical Services under the Contract Laboratory Program. In order to most efficiently obtain laboratory capability your request, please address the following considerations, if applicable. Incomplete or erroneous information may result in delay in the processing of your request. Please continue response on additional sheets, or attach supplementary information as needed.

General description of analytical service requested: Analysis of groundwater

samples for seven organochloride hydrocarbons, 3 of which are currently HSL compounds  
and 4 which are not. To be analyzed using GC/EC and GC/MS.

2. Definition and number of work units involved (specify whether whole samples or fractions; whether organics or inorganics; whether aqueous or soil and sediments; and whether low, medium, or high concentration):

(2) Groundwater samples, low concentration.

(2) of which are duplicates and (2) are blanks

3. Purpose of analysis (specify whether Superfund (Remedial or Enforcement), RCRA, NPDES, etc.):

Superfund RI/FS

4. Estimated date(s) of collection: Weeks of August 18 and August 25, 1986
5. Estimated date(s) and method of shipment: Weeks of August 18 and August 25, 1986
6. Number of days analysis and data required after laboratory receipt of samples:

30 days

7. Analytical protocol required (attach copy if other than a protocol currently used in this program):

Analyze for the compounds in Table I using GC/EC. Extraction of pesticide (GC/EC) analysis performed according to IFB WA J 838/839. For analysis, lab should use various temperature programs and combinations of dissimilar capillary columns to achieve resolution of all seven compounds to a level of less than a 25% valley. Lab must use a second dissimilar column for confirmation. For any

samples where compounds are found in quantities greater than requested detection

limit for GC/MS (Table I) these samples must be run using GC/MC according to IFB

WA J 838/839 for Acid/Base/Neutral fraction. Quantitation should be on the largest ion with no interference

8. Special technical instruction (if outside protocol requirements, specify compound names, CAS numbers, detection limits, etc.): For GC/EC analysis

the following compounds should be chromatographed separately on both columns and

then mixed and run as a standard mix to show the resolution of the chromatography.

A three point calibration must be run as per IFB:

Hexachloronorborene  
Octachlorocyclopentene  
Heptachloronorborene  
Chlordane

For samples of sufficient concentration to be analyzed by GC/MS, a three point calibration must be done using the mix of compounds. For both methods, internal standards (see at

9. Analytical results required (if known, specify format for data sheets, OA/OC reports, Chain-of-Custody documentation, etc.). If not completed, format of results will be left to program discretion.

Lab must submit all spectra, calibration forms etc as per IFB WA 85 <sup>664 680</sup> 1838/839 successful combinations of temperature programs and columns should be identified and accompanied by all IFB required data, All CHROMATOGRAMS OF SAMPLE AND STD. CALIBRATIONS MUST BE SUBMITTED.

10. Other (use additional sheets or attach supplementary information, as needed):

11. Name of sampling/shipping contact: Wendy Dewar

Phone: 312 786 1313

8. Continued

must be used as per IFB, ~~and~~ The above compounds ~~should be used as the~~ <sup>should be used as the</sup>  
matrix spike AT 5X THE DETECTION LIMIT.

ALUMINA COLUMN CLEANUP should show a  
RECOVERY > 80% (SAME AS FOR OTHER COMPOUNDS)\*

\* IF < 80%, CALL EPA REGION V

DATA REQUIREMENTSParameter:Detection LimitPrecision Desired  
(% or Conc.)See Table I±20 for both methodsI. QC REQUIREMENTSAudits RequiredFrequency of AuditsLimits\* (% or Conc.)Matrix Spike/Matrix Spike Dup.One per 10 samples or less35%-135% R~~Surrogate~~~~One per 10 samples or less~~Laboratory BlankOne per 10 samples or lessAs per IFBSurrogatesAs per IFBSummarized on Table IIII. ACTION REQUIRED IF LIMITS ARE EXCEEDED:Contact Dennis Wasolowski - Region V EPA(312) 886-1971

ease return this request to the Sample Management Office as soon as possible to expedite processing of your request for special analytical services. Should you have any questions need any assistance, please call the Sample Management Office.

TABLE I

Task: Analysis of soil extracts for seven organochloride hydrocarbons, 3 of which are currently HSL compounds and 4 of which are not. To be analyzed using GC/EC and GC/MS.

<u>Compound</u>	<u>Requested Limit for GC/EC (ug/l)</u>	<u>Requested Limit for GC/MS (ug/l)</u>
Hexachlorobenzene *	0.05	1.5
Hexachlorocyclopentadiene *	0.10	2.0
Hexachlorobutadiene *	0.05	1.0
Hexachloronorboradiene	0.05 0.02	1.0
Octachlorocyclopentene	0.05 0.02	1.0
Heptachloronorborene	0.05 0.02	1.0
Chlordane	0.05	1.0

\* HSL compounds

Include table here for soil DL'S

**TABLE II**  
**QC LEVEL OF EFFORT FOR CLP ANALYTICAL SERVICES**

**Method of Analysis**

**Lab Blanks**

**Spikes or Surrogates/Spikes**

**Lab Duplicates**

**Matrix Spike/Duplicate**

GC/MS

One per set of samples or a minimum of 1 in 10

Surrogates added to each sample and matrix spikes added to one sample per set

NR

One per set of samples or a minimum of 1 in 10

GC/EC

One per set of samples or a minimum of 1 in 10

~~One spike per set of samples or a minimum of 1 in 10~~ Surrogate (DBC) added to each sample & matrix spikes (using all target compounds) added to one in 10 samples.

One per set of samples or a minimum of 1 in 10

One per set of samples or a minimum of 1 in 10